

Half Yearly Report on Management of Foreign Exchange Reserves

October 2022 - March 2023



Reserve Bank of India

Department of External Investments and Operations (DEIO)

Central Office, Mumbai

Report on Management of Foreign Exchange Reserves

Contents

Part-I: Developments during the Half-year
I.1 Introduction
I.2 Movement of Foreign Exchange Reserves
I.2.1 Review of Growth of Foreign Exchange Reserves
I.2.2 Sources of Accretion to Foreign Exchange Reserves
I.3 Forward Outstanding
I.4 External Liabilities vis-à-vis Foreign Exchange Reserves
I.5 Adequacy of Reserves
I.6 Management of Gold Reserves
I.7 Investment Pattern of the Foreign Currency Assets
I.8 Other Related Aspects
I.8.1 Financial Transaction Plan (FTP) of the IMF
I.8.2 Investments under New Arrangements to Borrow (NAB) and Note Purchase Agreement (NPA) with IMF
I.8.3 SAARC Swap Arrangement between India and Bhutan
I.8.4 SAARC Swap Arrangement between India and Maldives
I.8.5 SAARC Swap Arrangement between India and Sri Lanka
I.8.6 Investment in Bonds issued by IIFC (UK)
Part-II: Objectives of Reserve Management, Legal Framework, Risk Management Practices, Transparency and Disclosure
II.1 Objectives of Reserve Management
II.2 Legal Framework and Policies
II.3 Risk Management
II.3.1 Credit Risk
II.3.2 Market Risk
II.3.2.1 Currency Risk
II.3.2.2 Interest Rate Risk
II.3.3 Liquidity Risk
II.3.4 Operational Risk and Control System
II.4 Transparency and Disclosures

Developments during the Half Year ended March 2023

I.1 Introduction

The Reserve Bank of India publishes half-yearly reports on management of foreign exchange reserves as part of its efforts towards enhanced transparency and levels of disclosure. These reports are prepared half yearly with reference to the position as at end-March and end-September each year. The present report (40th in the series) is with reference to the position as at end-March 2023.

The report is divided into two parts: Part I contains the developments regarding movement of foreign exchange reserves, information on the external liabilities vis-à-vis the reserves, adequacy of reserves, *etc.*, during the half-year under review. Objectives of reserve management, statutory provisions, risk management practices, information on transparency and disclosure practices followed by the RBI with regard to reserve management are covered in Part II.

Part-I

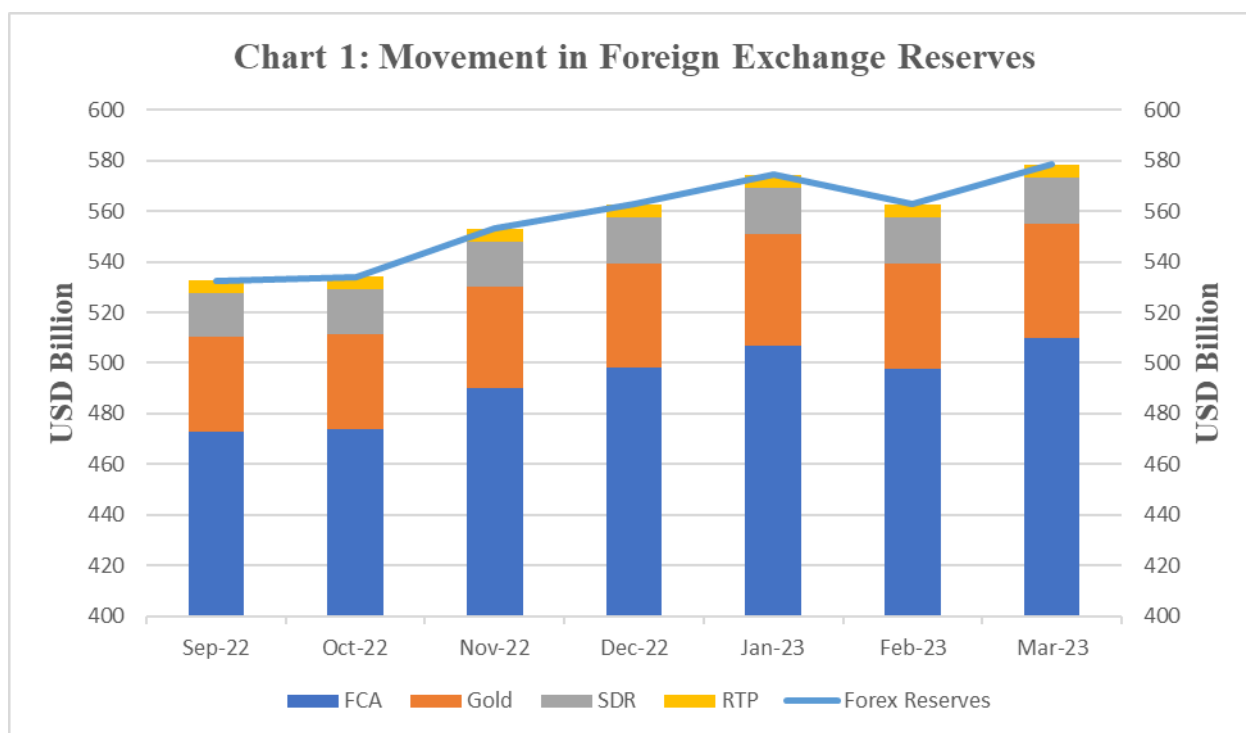
I.2 Movement of Foreign Exchange Reserves

I.2.1 Review of Growth of Foreign Exchange Reserves

During the half-year period under review, reserves increased from USD 532.66 billion as at end-September 2022 to USD 578.45 billion as at end-March 2023 (**Table 1 and Chart 1**).

Although both US dollar and Euro are intervention currencies and the Foreign Currency Assets (FCA) are maintained in major currencies, the foreign exchange reserves are denominated and expressed in US dollar terms. Movements in the FCA occur mainly on account of purchase and sale of foreign exchange by the RBI, income arising out of the deployment of the foreign exchange reserves, external aid receipts of the Central Government and changes on account of revaluation of the assets.

Table 1: Movement in Foreign Exchange Reserves					
					(USD Million)
Month End	FCA	Gold	SDR	RTP	Forex Reserves
September-22	472807	37605	17427	4826	532664
			(13658)		
October-22	474131	37496	17557	4839	534022
			(13658)		
November-22	490282	39877	17955	5056	55317
			(13662)		
December-22	498022	41291	18248	5159	562721
			(13662)		
January-23	506886	43837	18467	5227	574416
			(13662)		
February-23	497863	41631	18127	5102	562723
			(13667)		
March-23	509691	45200	18392	5165	578449
			(13667)		
Notes:					
(i) FCA (Foreign Currency Assets): FCA are maintained as a multi-currency portfolio comprising major currencies, such as, US dollar, Euro, Pound sterling, Japanese yen, <i>etc.</i> and are valued in terms of US dollars.					
(ii) FCA excludes (a) investment in bonds issued by IIFC (UK) (b) SDR holdings of Reserve Bank, which is included under SDR and (c) amount lent under SAARC Swap Arrangement.					
(iii) SDR (Special Drawing Rights): Values in SDR million have been indicated in parentheses.					
(iv) RTP refers to the Reserve Tranche Position in the International Monetary Fund (IMF).					
(v) Difference, if any, is due to rounding off.					



I.2.2 Sources of Accretion to Foreign Exchange Reserves

On a balance of payments basis (i.e., excluding valuation effects), foreign exchange reserves decreased by US\$ 14.7 billion during April-December 2022 as compared with increase of US\$ 63.5 billion during April-December 2021. Foreign exchange reserves in nominal terms (including valuation effects) decreased by US\$ 44.6 billion during April-December 2022 as compared with increase of US\$ 56.6 billion in the corresponding period of the preceding year.

Table 2 provides details of sources of variation in foreign exchange reserves during April-December 2022 vis-à-vis the corresponding period of the previous year. The valuation loss amounted to US\$ 29.9 billion during April-December 2022 as against a valuation loss of US\$ 6.9 billion during April-December 2021.

Table 2: Sources of Variation to Foreign Exchange Reserves*			
(USD billion)			
	Items	April-December 2021	April-December 2022 **
I.	Current Account Balance	-25.3	-67.1
II.	Capital Account (net) (a to f)	88.9	52.4
a.	Foreign Investment	23.2	18.2
(i)	Foreign Direct Investment	24.8	21.7
(ii)	Portfolio Investment, [(of which)]	-1.6	-3.5
	FII	0.2	-3.2
	ADR/GDR	0.0	0.0
b.	Banking Capital, [(of which)]	12.6	25.0
	NRI Deposits	3.1	5.4
c.	Short term credit	13.3	8.1
d.	External Assistance	2.7	3.8
e.	External Commercial Borrowings	4.7	-5.6
f.	Other items in capital account	32.3	2.8
III.	Valuation change	-6.9	-29.9
	Total (I+II+III) @ Increase in reserves (+) / Decrease in reserves (-)	56.6	-44.6
<p>*: Based on the old format of BoP which may differ from the new format (BPM6) in the treatment of transfers under the current account and ADRs/ GDRs under portfolio investment.</p> <p>@: Difference, if any, is due to rounding off.</p> <p>Note: ‘Other items in capital account’ apart from ‘Errors and Omissions’ include SDR allocations, leads and lags in exports, funds held abroad, advances received pending issue of shares under FDI and capital receipts not included elsewhere and rupee denominated debt.</p> <p>** : Updated figures available only up to December 2022.</p>			

I.3 Forward Outstanding

The net forward asset (receivable) of the Reserve Bank stood at USD 23.60 billion as at the end of March 2023.

I.4 External Liabilities vis-à-vis Foreign Exchange Reserves

India's International Investment Position (IIP), which is a summary record of the stock of country's external financial assets and liabilities as at end-December 2022, is furnished in **Table 3**. During the period between end-December 2021 and end-December 2022, the external assets decreased by USD 52.3 billion and external liabilities decreased by USD 30.2 billion.

Table 3: International Investment Position of India *		
(USD Billion)		
Item	End-December 2021 (PR)	End-December 2022 (P)
A. Total External Assets	928.0	875.7
1. Direct Investment	208.1	222.6
2. Portfolio Investment	9.7	10.9
3. Other Investment	76.6	79.5
4. Foreign Exchange Reserves	633.6	562.7
B. Total External Liabilities	1280.4	1250.2
1. Direct Investment	514.1	510.7
2. Portfolio Investment	284.7	245.7
3. Other Investment	481.6	493.8
C. Net IIP (A-B) @	(-) 352.4	(-) 374.5
P: Provisional, PR: Partially revised.		
@ Difference, if any, is due to rounding off.		
*: Updated figures available only up to December 2022.		

The net IIP as at end-December 2022 was negative at USD 374.5 billion as against a negative net IIP of USD 352.4 billion at end-December 2021, implying that the sum of all external liabilities is more than that of the external assets in both periods.¹ There has been an increase in the negative gap on a year-on-year basis.

¹ Partially revised figures and hence may not tally with figures published in the previous reports.

I.5 Adequacy of Reserves

At end of December 2022, foreign exchange reserves cover of imports (on balance of payments basis) increased to 9.3 months from 8.9 months at end-September 2022. The ratio of short-term debt (original maturity) to reserves, which was 23.8 per cent at end-September 2022, decreased to 23.0 per cent at end-December 2022. The ratio of volatile capital flows (including cumulative portfolio inflows and outstanding short-term debt) to reserves decreased from 75.5 per cent at end-September 2022 to 72.7 per cent at end-December 2022.

I.6. Management of Gold Reserves

As at end-March 2023, the Reserve Bank held 794.64 metric tonnes of gold (including gold deposits of 56.32 metric tonnes). While 437.22 metric tonnes of gold is held overseas in safe custody with the Bank of England and the Bank of International Settlements (BIS), 301.10 metric tonnes of gold is held domestically. In value terms (USD), the share of gold in the total foreign exchange reserves increased from about 7.06 per cent as at end-September 2022 to about 7.81 per cent as at end-March 2023.

I.7 Investment Pattern of the Foreign Currency Assets

The foreign currency assets comprise multi-currency assets that are held in multi-asset portfolios as per the existing norms, which conform to the best international practices followed in this regard. As at end-March 2023, out of the total FCA of USD 509.69 billion, USD 411.65 billion was invested in securities, USD 75.51 billion was deposited with other central banks and the BIS and the balance USD 22.52 billion comprised deposits with commercial banks overseas (**Table 4**). With the objective of exploring new strategies and products in reserve management while diversifying the portfolio, a small portion of the reserves is being managed by external asset managers. The investments made by the external asset managers are governed by the permissible activities as per the RBI Act, 1934.

Table 4 : Deployment Pattern of Foreign Currency Assets		
(USD Million)		
	As at end of September 2022	As at end of March 2023
Foreign Currency Assets (FCA) *	4,72,807	5,09,691
(a) Securities	3,61,842	4,11,653
	(76.53)	(80.76)
(b) Deposits with other central banks & BIS	81,638	75,514
	(17.27)	(14.82)
(c) Deposits with commercial banks overseas	29,327	22,524
	(6.20)	(4.42)
* FCA excludes (a) investment in bonds issued by IIFC (UK) (b) SDR holdings of Reserve Bank which is included under SDR and (c) amount lent under SAARC Swap Arrangement.		
Note: Figures in parenthesis indicate percentage to total FCA.		

I.8 Other Related Aspects

I.8.1 Financial Transaction Plan (FTP) of the IMF

During the half year under review, there were two purchase transactions aggregating USD 139.38 million and three repurchase transactions aggregating USD 82.470 million under the FTP of the IMF.

I.8.2 Investments under New Arrangements to Borrow (NAB) and Note Purchase Agreement (NPA) with IMF

India had committed to provide resources up to SDR 4,440.91 million under the IMF's New Arrangements to Borrow (NAB). Effective January 01, 2021, the size of IMF's NAB has been doubled. India's commitment under NAB now stands at SDR 8,881.82 million as on September 30, 2022. RBI has subscribed to Notes equivalent to SDR 27.79 million under NAB till the end of March 2023, as part of the Government of India's Contribution. In terms of the Note Purchase Agreement (NPA) 2020, entered into between RBI and IMF, RBI has agreed to invest an amount equivalent to USD 3.90 billion in SDR denominated Notes issued by IMF.

I.8.3 SAARC Swap Arrangement between India and Bhutan

Bhutan had availed a swap of ₹15,178.70 million, equivalent to USD 200 million on March 17, 2022, due for maturity on June 17, 2022. The swap was rolled over twice for three months each with the second rollover having matured on December 19, 2022. Further, Bhutan had availed a swap of ₹16,267.08 million, equivalent to USD 200 million on November 16, 2022 due for maturity on February 16, 2023. The swap was rolled over for three months with the rollover maturing on May 16, 2023.

I.8.4 SAARC Swap Arrangement between India and Maldives

Maldives has availed a swap of USD 100 million on December 27, 2022 due for maturity on June 27, 2023.

I.8.5 SAARC Swap Arrangement between India and Sri Lanka

Central Bank of Sri Lanka (CBSL) had availed a swap of USD 400 million on January 13, 2022 and repaid the interest accrued on the facility till February 28, 2023. The SAARC Swap facility availed by CBSL is under examination.

I.8.6 Investment in bonds issued by IIFC (UK)

The Reserve Bank has the mandate to invest up to USD 5 billion, in the bonds issued by the India Infrastructure Finance Company (UK) Limited. As at end of March 2023, the amount invested in such bonds stood at USD 1.163 billion.

Part-II

Objectives of Reserve Management, Legal Framework, Risk Management Practices, Transparency and Disclosure

II.1. Objectives of Reserve Management

The guiding objectives of foreign exchange reserve management in India are similar to those of many central banks in the world. The demands placed on the foreign exchange reserves may vary widely depending upon a variety of factors including the exchange rate regime adopted by the country, the extent of openness of the economy, the size of the external sector in a country's GDP and the nature of markets operating in the country. While safety and liquidity constitute the twin objectives of reserve management in India, return optimization is kept in view within this framework.

II.2. Legal Framework and Policies

The Reserve Bank of India Act, 1934 provides the overarching legal framework for deployment of reserves in different foreign currency assets and gold within the broad parameters of currencies, instruments, issuers and counterparties. The essential legal framework for reserve management is provided in sub-sections 17(6A), 17(12), 17(12A), 17(13) and 33 (6) of the above Act. In brief, the law broadly permits the following investment categories:

- deposits with other central banks and the BIS;
- deposits with commercial banks overseas;
- debt instruments representing sovereign/sovereign-guaranteed liability with residual maturity for the debt papers not exceeding 10 years;
- other instruments / institutions as approved by the Central Board of the Reserve Bank in accordance with the provisions of the Act; and
- dealing in certain types of derivatives.

II.3 Risk Management

The broad strategy for reserve management including currency composition and investment policy is decided in consultation with the Government of India. The risk management functions are aimed at ensuring development of sound governance structure in line with the best international practices, improved accountability, a culture of risk awareness across all operations, efficient allocation of resources and development of in-house skills and expertise. The risks attendant on deployment of

reserves, viz., credit risk, market risk, liquidity risk and operational risk and the systems employed to manage these risks are detailed in the following paragraphs.

II.3.1 Credit Risk

The Reserve Bank is sensitive to the credit risk it faces on account of the investment of foreign exchange reserves in the international markets. The Reserve Bank's investments in bonds/treasury bills represent debt obligations of highly rated sovereigns, central banks and supranational entities. Further, deposits are placed with central banks, the BIS and commercial banks overseas. RBI has framed requisite guidelines for selection of issuers/ counterparties with a view to enhancing the safety and liquidity aspects of the reserves. The Reserve Bank continues to apply stringent criteria for selection of counterparties. Credit exposure vis-à-vis sanctioned limit in respect of approved counterparties is monitored continuously. Developments regarding counterparties are constantly under watch. The basic objective of such an on-going exercise is to assess whether any counterparty's credit quality is under potential threat.

II.3.2 Market Risk

Market risk for a multi-currency portfolio represents the potential change in valuations that result from movements in financial market prices, viz. changes in interest rates, foreign exchange rates, equity prices and commodity prices. The major sources of market risk for central banks are currency risk, interest rate risk and movement in gold prices. These risks are managed using Value-at-Risk (VaR), Conditional Value-at-Risk (CVaR), scenario analysis, stress testing etc. Further, to manage interest rate risk, duration and permitted deviations from the duration are specified as per the prevailing market conditions.

Gains/losses on valuation of FCA and gold due to movements in the exchange rates and/or price of gold are booked under a balance sheet head named the Currency and Gold Revaluation Account (CGRA). The balances in CGRA provide a buffer against exchange rate/gold price fluctuations. The dated foreign securities are valued at market prices at the end of each business day and the appreciation/depreciation arising therefrom is transferred to the Investment Revaluation Account (IRA). The balance in IRA is meant to provide cushion against changes in the security prices over the holding period.

II.3.2.1 Currency Risk

Currency risk arises due to movements in the exchange rates. Decisions are taken on the long-term exposure to different currencies depending on the likely movements in exchange rates and other considerations over the medium and long-term. The decision-making procedure is supported by reviews of the strategy on a regular basis.

II.3.2.2 Interest Rate Risk

The crucial aspect of the management of interest rate risk is to protect the value of the investments as much as possible from adverse impact of interest rate movements. The interest rate sensitivity of the portfolio is identified in terms of the benchmark duration and the permitted deviation from the benchmark.

II.3.3 Liquidity Risk

Liquidity risk involves the risk of not being able to sell an instrument or close a position when required without facing significant costs. The reserves need to have a high level of liquidity at all times in order to be able to meet any unforeseen and emergency needs. Any adverse development on the external front would pose a demand on our forex reserves and, hence, the investment strategy needs a highly liquid portfolio. The choice of instruments determines the liquidity of the portfolio. For example, in some markets, treasury securities could be liquidated in large volumes without much distortion of the price in the market and, thus, can be considered as liquid. Except fixed deposits with the BIS/ commercial banks overseas / central banks and securities issued by supranationals, almost all other types of investments are highly liquid instruments which could be converted into cash at short notice. The Reserve Bank closely monitors the portion of the reserves which could be converted into cash at a very short notice to meet any unforeseen/ emergency needs.

II.3.4 Operational Risk and Control System

In tune with the global trend, close attention is paid to strengthen the operational risk control arrangements. Key operational procedures are documented. Internally, there is total separation of the front office and the back-office functions and the internal control systems ensure several checks at the stages of deal capture, deal processing and settlement. The deal processing and settlement system,

including generation of payment instructions, is also subject to internal control guidelines. There is a system of concurrent audit for monitoring compliance in respect of the internal control guidelines. Further, reconciliation of accounts is done regularly. In addition to internal audit and independent monitoring, the financial accounts are audited by external statutory auditors. There is a comprehensive reporting mechanism covering significant areas of activity/ operations relating to reserve management. These are provided to the senior management at frequent intervals, depending on the type and sensitivity of information. The Reserve Bank uses SWIFT as the messaging platform to settle its trades and send financial messages to its counterparties, custodians of securities and other business partners. International best practices with respect to usage and security of SWIFT system are followed. All the necessary upgrades were implemented in a timely manner in the SWIFT Alliance Access system along with strict compliance with all the mandatory security control measures as recommended by SWIFT. The SWIFT infrastructure was successfully upgraded including the hardware and software components to the latest version. Further, Reserve Bank of India has successfully migrated to SWIFT ISO 20022 standards in March 2023. Its system is now enabled to interact with MX messaging formats having enhanced security features.

II.4 Transparency and Disclosures

The Reserve Bank has been making available in the public domain data relating to Foreign Exchange Reserves, its operations in foreign exchange market, position of the country's external assets and liabilities and earnings from deployment of Foreign Currency Assets and gold through periodic press releases of its Weekly Statistical Supplements, Monthly Bulletins, Annual Reports, etc. The Reserve Bank's approach with regard to transparency and disclosure closely follows international best practices in this regard. The Reserve Bank has adopted the Special Data Dissemination Standards (SDDS) template of the IMF for publication of the detailed data on Foreign Exchange Reserves. Such data are made available on monthly basis on the Reserve Bank's website.